

Adopted by Resolution ____

**CITY OF ROCKVILLE
DEPARTMENT OF PUBLIC WORKS
SEDIMENT CONTROL AND STORMWATER MANAGEMENT REGULATIONS
DRAFT**

**ARTICLE I
General**

A. Authority

Pursuant to the provisions of Section 19-11, Chapter 19 (Stormwater Management and Sediment Control) of the Rockville City Code, the Environment Article, Title 4, Subtitle 2 (Stormwater Management), Annotated Code of Maryland, 2009 replacement volume, and Code of Maryland Regulations COMAR 26.17.01 (Erosion and Sediment Control) and COMAR 26.17.02 (Stormwater Management), the Department adopts these Regulations subject to the approval of the Mayor and Council.

B. Definitions

The various terms used in these Regulations are defined in Chapter 19 (Sediment Control and Stormwater Management) and Chapter 25 (Zoning and Planning Ordinance) of the Rockville City Code. Any term not so defined shall be given its ordinary meaning within the context in which it is used.

C. Documents Incorporated by Reference.

These regulations incorporate by reference the following documents, as they may be subsequently amended: (Copies are available for reference at the Department).

(a) The 2000 Maryland Stormwater Design Manual, Volumes I and II (Maryland Department of the Environment, April 2000), Supplement I, and all subsequent revisions.

(b) United States Department of Agriculture, Natural Resources Conservation Service, Maryland Conservation Practice Standard Pond Code 378 (January 2000).

(b) Maryland Department of the Environment, Water Management Administration, Maryland Standards and Specifications for Soil Erosion and Sediment Control (1994).

(c) City of Rockville, Standards and Details for Construction (January 1998).

(d) Guidance established by the Department that provide for interpretation and implementation of Chapter 19 of the Rockville City Code and these Regulations.

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ARTICLE II

Stormwater Management.

DIVISION 1. POLICY AND PROCESS

A. Stormwater Management Approvals.

(1) The applicant is responsible for obtaining all stormwater management approvals and permits in accordance with Chapter 19 and these Regulations.

(2) A Pre-application Stormwater Management Concept approval is required before an applicant may submit a Development Stormwater Management Concept or a Stormwater Management Permit Application.

(3) The applicant may not file a Site Development Plan without obtaining a Pre-Application Stormwater Management Concept approval unless the development project is proceeding under the combined approval process in Section 19-63(d).

(4) An applicant may not receive a Site Development Plan or Preliminary Subdivision Plan approval without receiving a Development Stormwater Management Concept approval.

(5) An applicant may not receive a Special Exception or Project Plan approval without receiving a Pre-Application Stormwater Management Concept Approval.

(6) Development Stormwater Management Concept approval is required before an applicant may submit a Stormwater Management Permit application.

(7) The Department may, at its sole discretion, combine the Pre-application Stormwater Management Concept and the Development Stormwater Management Concept into a single streamlined submittal and approval for projects that do not have a Pre-Application Meeting stage. The same information must be submitted for the combined Pre-Application/Development Stormwater Management Concept as is required for the two separate submittals of the Pre-Application Stormwater Management Concept and the Development Stormwater Management Concept submittal.

(8) No applicant shall receive a building permit prior to any required Stormwater Management or Sediment Control Permit.

(9) A Stormwater Management Permit and the related Sediment Control Permit for a stormwater management system or watershed improvement must be issued prior to the construction of any part of the stormwater management system or watershed improvement, and prior to the issuance of any related permit that creates impervious area to be controlled by the stormwater management system.

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(10) All Pre-application Stormwater Management Concept, Development Stormwater Management Concept, Stormwater Management Construction Plans and Permits must meet all State and City stormwater management standards in effect at time of issuance, subject to any transition provisions specified by the State or City.

B. Stormwater Management Approval for Project Plan or Multi-phase Development Projects.

In addition to the requirements of Article II. Division 1. A. above, all Project Plans and developments that propose to build in phases or stages, including multi-phase Site Plans, Special Exceptions, and other Community Planning and Development Services Development Applications, are subject to the following requirements.

(a) A Pre-Application Stormwater Management Concept that comprehensively provides for all phases of the development must be submitted at the earliest stage of the development review process (i.e., Project Plan, Special Exception, etc.).

(b) Both a Pre-Application and Development Stormwater Management Concept for a multi-phase development may be implemented over the life of the project through issuance of Stormwater Management Permits, provided that said Permits meet stormwater management standards in effect at time of permit issuance as provided in Article II. Division I. D.5 of these Regulations. Unless otherwise directed by the Department, each subsequent phase of a multi-phase development must, at a minimum, obtain approvals at the Development Stormwater Management Concept, Stormwater Management Construction Plan, and Stormwater Management Permit review stages to receive a Stormwater Management Permit.

(c) A Stormwater Management Permit must be approved and the stormwater management systems constructed for each phase prior to or in conjunction with construction of that phase. Stormwater management systems may be constructed prior to construction of imperviousness in later phases, but may be subject to later modifications, upgrades, revisions, or retrofits to address updates to stormwater management requirements.

C. City Acceptance for Structural Maintenance Responsibility

(1) Pursuant to Sec. 19-69 of Chapter 19, the owner of a private stormwater management system serving multiple properties may request that the City assume structural operation and structural maintenance responsibility for the system. The owner must submit, at the owner's expense, the following to support the request:

- (a) Payment of any required application fee;
- (b) Description of the type of system (or facilities), including water quality control and/or water quantity control design criteria and performance standard, and year built;
- (c) Drainage area map for the system showing the boundaries and acreages for impervious areas that are treated in the system;
- (d) As-built engineering plans for the system;
- (e) A narrative of the known maintenance history of the system, including routine maintenance and significant structural maintenance and repair;

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(f) Information on any public funds used to repair, upgrade or retrofit the system, including the amount and the date the repair, upgrade or retrofit was made;

(g) An Initial Certification Report prepared by a Professional Engineer, or under the guidance of a Professional Engineer.

1. Initial certification shall include an inspection report pursuant to Article II, Division 5.D. of these Regulations, or other format approved by the Department. The report must certify that the stormwater management system is “functioning as originally designed”, is safe, operational and has been adequately maintained. Functioning as originally designed means that the system is functioning in accordance with the original design specifications, or as later approved by the Department, regardless of whether the system meets the standards established in the most recent version of the Maryland Stormwater Design Manual.

2. The initial certification report shall be signed and sealed by the responsible Professional Engineer. The certification inspection shall not be more than one year old at time of application.

(2) Any maintenance, safety, or functional deficiencies must be remedied at the owner’s expense before the system is accepted by the City for ongoing structural maintenance. Regardless of the City’s decision to accept the system, all deficiencies must be remedied. The City may undertake any necessary action to remedy a deficiency and recoup all costs from the owner.

(3) The property owner shall submit easement documents, in a format acceptable to the City, that grant the City access for structural operation and maintenance of the system, and that reserve aesthetic maintenance (including, but not limited to landscaping, mowing and minor trash removal) as the responsibility of the property owner. At the City’s request, the owner may also be required to submit documents for release or modification of existing stormwater maintenance easements and agreements. All required documents must be approved by the City, executed and recorded in the land records prior to the City formally accepting structural operation and maintenance responsibilities.

(4) The Director shall review and decide requests for the City to assume maintenance and operation responsibilities for private stormwater management systems primarily serving single unit detached dwellings, townhouses, and/or semi-detached dwellings located on separate lots. The Mayor and Council shall review and decide all requests for the City to assume responsibility for stormwater management systems serving all other land uses.

(5) Satisfaction of all the requirements set forth in this Article I.F and in Chapter 19, section 19-61(b) of the Rockville City Code shall not obligate the City to accept a stormwater management system for structural operation or structural maintenance.

D. Notifications Required.

(1) The Applicant must provide written notification, in conformance with the City's procedure, of the pending Pre-Application Stormwater Management Concept. The notification is to be sent to the owners of adjoining properties and owners of properties within 500 feet downstream of the proposed development and must be sent within 10 calendar days of

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submitting the concept application. **Evidence of such notification must be provided to the City before the Concept can be approved.** The City may, at its sole discretion, require the Applicant to provide subsequent notifications such as at the Development Stormwater Management Concept stage.

(2) Where a stormwater management construction plan provides for the construction of a storm drainage or stormwater management system outfall on another property, it shall be the responsibility of the developer to adequately notify the owner of said property of the impact on the property of the increased runoff, and to obtain from said property owner an easement for the outfall and/or a save harmless agreement.

DIVISION 2. STORMWATER MANAGEMENT SUBMITTAL REQUIREMENTS, REVIEW STANDARDS, AND APPROVALS

A. Pre-Application Stormwater Management Concept.

(1) A Pre-Application Stormwater Management Concept provides the framework for submittal of a Development Stormwater Management Concept and Stormwater Management Permit. It is subject to modification during the subsequent review stages. It should provide sufficient information for an initial assessment of the proposed development and its conformance with Chapter 19 of the Rockville City Code. The terms and conditions of an approved Pre-application Stormwater Management Concept may be amended at the Department's sole discretion to address changes to stormwater management standards or requirements as determined by the State or the City. The level of detail for the Pre-Application submission shall be consistent with required site plan submission required by Chapter 25 of the Rockville City Code.

(2) Submittals for Pre-application Stormwater Management Concept approval shall include, at a minimum, the following information:

(a) Completed Pre-application Stormwater Management Concept application and application fee;

(b) Pre-application Stormwater Management Concept plan showing information as required on the stormwater management concept checklist, including but not limited to;

(1) A narrative that supports the concept design and describes how ESD will be implemented to the maximum extent practicable, including a discussion of the environmental site design planning techniques described in Chapter 5 of the Design Manual.

(2) A drainage area map, indicating boundaries and acreage of each sub-drainage area, and locations of all points of discharge from the site;

(3) Description of how stormwater runoff from the development will be controlled to meet the City's stormwater management requirements in order of priority as listed in Chapter 19-51, including types and locations of proposed environmental site design practices and structural stormwater management practices;

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(4) Descriptions of -proposed Stormwater Management Alternatives, including a plan indicating sub-drainage areas affected, computations, a table listing the impervious acreage for each area and what type of contribution is proposed (i.e., contribution for components of water quality, quantity, or both), and written justification for the alternative that addresses the requirements of Chapter 19-61 and Article II. Division 2.E.1 of these Regulations;

(5) A Forestry/Stormwater Management Overlay Plan;

(6) A geotechnical report including infiltration tests;

(7) Where Easements are required, designated access path to the proposed Stormwater Management Systems from public rights-of-way for the purpose of maintenance;

(8) Conceptual hydrology and stormwater management system sizing computations. Basic design hydrology must be consistent with the Design Manual;

(9) An approved Natural Resources Inventory/Forest Stand Delineation (NRI/FSD), as required by Chapter 10.5 of the Rockville City Code. The approved NRI/FSD must be used by the applicant as a guide to protect natural resources and choose environmental site design features appropriate to the site's stormwater management requirements and forest conservation goals.

(10) A table showing the Environmental Site Design and unified sizing criteria volumes required in the Design Manual;

(11) A drainage study analysis that demonstrates safe and non-erosive conveyance of the 10-year discharge into and through the storm drainage system and in the receiving stream, if required by the Department. The drainage study must identify any improvements to the storm drainage or watercourse needed for safe conveyance of the post-construction 10-year discharge.

(12) Any other materials the Department deems necessary.

(3) Approvals and Expiration. The Pre-Application Stormwater Management Concept approval consists of a letter, signed and dated by the Director or his designee. The approval expires one year after the date on the approval letter.

B. Development Stormwater Management Concept.

(1). Following Pre-application Stormwater Management Concept approval, the owner shall submit Development Stormwater Management Concept plans that reflect comments received during the previous review phase. Plans submitted at this phase of review should be of sufficient detail to allow site development to be reviewed and include:

(a) All information required to be provided during the Pre-Application phase and any necessary revisions to reflect any changes to the site plan;

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(b) The Pre-Application Stormwater Management Concept approval letter;

(c) Site layout, impervious area locations and acreages, proposed topography, delineated drainage areas at all points of discharge from the site and appropriate study points, and stormwater volume computations for all stormwater treatment practices;

(d) A drainage study analysis that demonstrates safe and non-erosive conveyance of the 10-year discharge into and through the storm drainage system and in the receiving stream, if required by the Department. The drainage study must identify any improvements to storm drainage or watercourse needed for safe conveyance of the post-construction 10-year discharge. The Department may require the applicant to design and construct such improvements as a condition of the Development Stormwater Management Concept.

(e) Any other material the Department may require;

(f) A copy of the Preliminary Forest Conservation plan;

(g) Supplemental or additional soil borings and other required geotechnical information;

(h) A conceptual Erosion and Sediment Control layout.

C. Stormwater Management Permit.

(1) Unless otherwise requested by the Department, the application for a Stormwater Management Permit shall include, at a minimum, the following information for review and approval by the Department. Said information shall be submitted on a schedule determined by the Department:

(a) Completed Stormwater Management Permit application on a form supplied by the Department;

(b) Stormwater Management Construction Plans as described below in Article II. Division 2.D;

(c) A copy of the Stormwater Management Concept approval letter;

(d) A narrative detailing each Stormwater Management System and describing how ESD has been implemented to the maximum extent practicable;

(e) Geotechnical investigations including soil maps, borings, site specific recommendations, and any additional information necessary for each proposed stormwater management system design;

(f) Depictions and descriptions of all City Water Ways, 100-year flood plains, water courses, impoundments, wetlands and wetland buffers on or adjacent to the site or into which stormwater directly flows;

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(g) Hydrologic computations and drainage area maps depicting pre-development and post-development runoff flow paths and land use;

(h) Hydraulic computations;

(i) Storm drainage computations for the 10-year storm;

(j) Any necessary structural computations;

(k) All necessary dam breach analyses, pond embankment classifications, and developed 100-year floodplain analyses;

(l) Unified sizing criteria volume computations according to the Design Manual;

(m) Sediment Control Permit approved by the City for construction of the Stormwater Management System and/or watershed improvements;

(n) Any required State or Federal permits for work in wetlands, wetland buffers, waterways or floodplains;

(o) Any required City, County, State, Federal or WSSC permits for work affecting public improvements regulated by these entities;

(p) Cost estimate for materials, including landscaping and construction costs, using the latest edition of the City of Rockville's *Standard Prices for Cost Estimating and Permit Applications*. Submissions must be on 8 ½ by 11" paper;

(q) Stormwater management monetary contribution for each category, if such contribution was approved with the Development Stormwater Management Concept;

(r) Performance bond or other surety;

(s) Stormwater management easement description, Maintenance Plans, easement/maintenance agreement, and record plat (if applicable);

(t) A copy of the Final Forest Conservation Plan; and

(u) Any other information required by the City.

(3) At the discretion of the Department, a Stormwater Management Permit application may be submitted that reflects amendments to the approved Stormwater Management Concept without formal revision of the Concept.

D. Stormwater Management Construction Plans.

Stormwater Management Construction Plans submitted to support a Stormwater Management Permit application shall include, at a minimum, the following:

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- (a) A vicinity map;
- (b) A topographic survey showing existing features and proposed contours, including the area necessary to analyze downstream impacts from the proposed stormwater management system;
- (c) Benchmark and layout information necessary for construction;
- (d) Any existing and proposed improvements including location and layout of buildings or other structures, impervious surfaces, utilities, storm drainage, stormwater management facilities, other watershed improvements, and all grading;
- (e) Locations of existing and proposed easements and rights-of-way;
- (f) Location, dimensions, and proposed grades for maintenance access to the stormwater management system;
- (g) The delineation, if applicable, of nearby streams, 100-year floodplain, adjacent wetlands, and associated buffers according to the City's Environmental Guidelines;
- (h) Drainage boundary and acreage to each individual environmental site design or structural stormwater management practice of the Stormwater Management System;
- (i) Structural and construction details and specifications for all components of the proposed drainage system or systems, Stormwater Management Systems, and/or Watershed Improvements;
- (j) Data for total site area, disturbed area, new impervious area, replacement impervious area, and total impervious area;
- (k) A table showing the Environmental Site Design and unified sizing criteria volumes required in the Design Manual;
- (l) A list of plant species, sizes, planting details, quantities and their locations to be used for stormwater management system or watershed improvement planting;
- (m) All soil boring logs and locations;
- (n) A maintenance plan for the life of the stormwater management system stating the maintenance to be completed, the time period for completion, and who shall perform the maintenance;
- (o) A construction inspection check-off table for each stormwater management system;
- (p) Certification by the owner/developer that all construction will be done according to the approved plan;

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(q) Landscape plans for any Stormwater Management System that incorporates landscaping, signed by a landscape architect licensed in the state of Maryland, as required by the City, that addresses aesthetic, habitat, and maintenance needs, and is in conformance with City standards;

(r) An as-built certification signature block to be executed after project completion;

(s) All City standard and project details, notes, specifications, and information relevant to each Stormwater Management System; and

(t) Storm drainage or stream stabilization plans for any drainage improvements required to meet safe conveyance standards.

E. Review Considerations for Stormwater Management Alternatives

(1) Stormwater management alternatives in lieu of on-site water stormwater management quality control for some or all of the Water Quality Volume and Recharge Volume and/or quantity control for some or all of the Channel Protection Volume and the Overbank Flood Protection Volume may be approved on a case-by-case basis after the Department has verified that environmental site design to the maximum extent practicable has been met and if the Department determines that the project meets one of the following conditions:

(a) A regional stormwater management system exists that provides adequate stormwater management quality and/or quantity control for the site and conveyance to the system location will not lead to additional degradation of water quality or quantity conditions; or

(b) The project is an infill development where onsite stormwater management implementation is not feasible; or

(c) a redevelopment project where impervious area reduction and environmental site design practices have been implemented onsite to the maximum extent practicable, and structural stormwater management practices are not feasible; or

(d) a site where the Department determines that circumstances exist that prevent the reasonable implementation of onsite quality and/or quantity control practices.

(2) Approval of a stormwater management alternative in lieu of on-site stormwater management quality and/or quantity control for all or part of a site shall be given only on a case-by-case basis.

(3) The Department shall consider the cumulative effects of all stormwater management alternatives approved within a watershed.

(4) For new development, the Department may approve a monetary contribution for Overbank Flood Protection Volume in the event that the development project has met Water Quality Volume and Channel Protection Volume controls onsite through Environmental Site Design Practices, and can safely convey the ten-year storm flow. For redevelopment, the Department may approve a monetary contribution for Channel Protection Volume and Overbank

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Flood Protection Volume in the event that the redevelopment project has met Water Quality Volume control onsite through Environmental Site Design or Structural Stormwater Management Practices, and can safely convey the ten-year storm flow.

F. Stormwater Management Monetary Contribution Formula and Requirements.

(1) When a stormwater management monetary contribution for all or part of a site is approved as an acceptable stormwater management alternative, it shall be based on the following table. An estimate of the required contribution shall be determined by the applicant during the Development Stormwater Management Concept review. The final contribution amounts shall be calculated during the Stormwater Management Permit review using the detailed engineering plans for impervious area calculation and the contribution rates in effect at the time of the permit issuance.

- (a) Where a monetary contribution is accepted by the City in lieu of on-site stormwater management treatment for these situations, the following formulas will apply:

Monetary Contribution Type	Applies to	Formula for contribution in lieu of the remaining required treatment
Water Quality Contribution	Areas with no Water Quality Volume (WQv) treatment	$C = A_i \times (\$12,000^*)$
Water Quality Contribution – with ESD	Areas treated by Environmental Site Design Practices that achieve partial Water Quality Volume (WQv) treatment	$C = A_i \times (\$6,000^*)$
Water Quantity Contribution	Areas with no Channel Protection Volume (CPv) treatment AND no Overbank Flood Protection Volume (Qp10) treatment	$C = A_i \times (\$40,000^*)$
Water Quantity Contribution – with CPv OR Water Quantity Contribution – with Qp10	Areas with only Channel Protection Volume (CPv) treatment OR only Overbank Flood Protection Volume (Qp10) treatment	$C = A_i \times (\$20,000^*)$
Water Quantity Contribution – with ESD	Areas treated by Environmental Site Design Practices that achieve partial Channel Protection Volume (CPv) treatment beyond the Water Quality Volume (WQv) requirements. NOTE: Overbank Flood Protection Volume (Qp10) must be provided separately through treatment or monetary contribution.	$C = A_i \times (\$10,000^*)$

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(b) With respect to sites involving more than one drainage area, the appropriate formula will be applied to each drainage area.

(c) A drainage area with 218 square feet or less of A_i (equivalent to 0.005 acres or less) will not be charged a stormwater management monetary contribution.

(d) The following definitions apply to each formula:

C – Contribution in dollars

A_i – Number of acres of impervious surface rounded to the nearest hundredth (0.01) of an acre. As provided for in these regulations, the impervious surface includes onsite new, replacement and existing impervious areas and one-half of the adjacent rights-of-way up to 30 feet maximum of existing and planned contiguous non-State streets and State owned rights-of-way where acceptable stormwater management has not been, or will not be, provided.

* These stormwater management monetary contribution rates are set by separate resolution of the Mayor and Council, and are subject to revision by the Mayor and Council.

(2) A monetary contribution in lieu of quality control is for the Water Quality Volume, which includes the Recharge Volume. The Recharge Volume shall not be separated for purposes of determining the monetary contribution.

(3) In rare circumstances, such as for environmental protection or technical constraints, the City may require a developer to make a monetary contribution in lieu of constructing otherwise acceptable on-site stormwater management. In such instances, the City may not require a contribution that exceeds the cost of providing acceptable on-site stormwater management. Where the applicant can provide evidence acceptable to the Department that on-site stormwater management (including the cost of the land and a maintenance escrow fund equaling the cost of construction) may be provided at a lower cost than the required contribution, the Department shall adjust the contribution to be no greater than the applicant's estimated on-site costs. None of the foregoing, however, prevents the City from accepting a voluntary contribution that exceeds the cost of an on-site system.

(4) A monetary contribution will be required in cases where a developer utilizes an off-site stormwater management system constructed for another development project, regardless of whether the system is public or private.

(5) Nothing requires the City to accept a monetary contribution in lieu of an on-site system if it would not be in the best interests of the City.

G. Pre-application and Development Stormwater Management Concepts; Effect of Previous Stormwater Management Monetary Contributions.

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(1) With respect to impervious areas covered by previous monetary contributions, the City will first require the applicant to implement environmental site design to the maximum extent practicable, in accordance with Chapter 19. After this has been exhausted, the City, in its sole discretion, may:

(a) Require on-site stormwater management for the area previously covered by a monetary contribution, if the City determines that on-site control is appropriate and practical; or

(b) require the developer to participate in a regional stormwater management project or watershed improvement project; or

(c) require an additional contribution equal to the difference between the amount previously required and the amount calculated by the current monetary contribution rate; or

(d) consider the stormwater management requirement as being satisfied without further monetary obligation, provided that the monetary contribution rates have not increased.

(2) All development projects must obtain approvals at both the Pre-Application and Development Stormwater Management Concept levels, regardless of whether a previous stormwater management monetary contribution was accepted for all or part of the site. Any proposal to credit a previous monetary contribution against current stormwater management requirements must be set forth in the Pre-application Stormwater Management Concept submittal and be reviewed by the Department.

(3) If on-site stormwater management or developer participation in a regional stormwater management or watershed project is required, no credit will be given for previous stormwater management monetary contribution payments.

(4) Nothing in Chapter 19 or these Regulations shall require the Department to accept a monetary contribution merely because one or more monetary contributions were previously accepted for the area.

DIVISION 3. Stormwater Management Design Criteria.

A. General requirements.

(1) All Stormwater management systems and non-structural practices must be designed and constructed in accordance with the Design Manual and Department standards, guidelines and specifications.

(2) Each development project must provide stormwater management for the site in accordance with standards and criteria current at the time of the project. Credit will be given for previously provided stormwater management measures only to the extent that those systems are deemed by the Director as meeting the current standards and implementing Environmental Site Design to the maximum extent practicable.

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(3) For purposes of the Overbank Flood Protection Volume and 100-year flood calculations, the pre-development peak discharge rate shall be computed assuming that all land cover in the tributary area are meadow in good hydrologic condition or more pervious existing conditions. If the existing cover is forest, then forest cover in good hydrologic condition shall be used for this computation. No curve number reductions will be credited for these computations.

(4) All storm drainage systems conveying off-site stormwater through private property shall be public systems or private systems which shall be designed, constructed and maintained to at least the standards of a public storm drainage system. The design and construction shall be certified by a Professional Engineer as meeting or exceeding public drainage system standards. Private storm drainage systems shall be made accessible to, and must be designed to reasonably accommodate, the upstream property owner's future reasonable use. The owner of a private storm drainage system must execute an easement approved by the Department and the City Attorney's office granting the upstream owner such access. The owner of the private storm drainage system shall execute a maintenance agreement approved by the Department and the City Attorney's office for that portion of the private storm drainage system which conveys off-site stormwater.

(5) Velocity dissipation devices and/or erosion control measures shall be placed at the outfalls of all Stormwater Management Systems and along the length of any outfall channel as necessary to provide a protected flowpath and non-erosive velocity of flow from the System to a defined stream or water course.

(6) Ponds meeting the applicable conditions of United States Department of Agriculture, Natural Resources Conservation Service (NRCS) Maryland Conservation Practice Standard Pond Code 378 must be designed in accordance with said code, and require approval from the Montgomery Soil Conservation District, as applicable. All dams and reservoirs must comply with Maryland COMAR 26.17.04.05, Dams and Reservoirs.

B. Overbank Flood protection.

(1) Overbank Flood Protection (Q_{p10}), which is the release of the 10-year post development discharge at the 10-year pre-development rate, is required for all development or redevelopment. Overbank Flood Protection shall be provided by Stormwater Management Alternative or provided on site, at the sole discretion of the Department.

(a) If downstream conveyance systems are adequate to safely collect and convey the 10-year stormflow from the sub-watershed's ultimate land use, the Department's first preference, in its sole discretion, is to accept a stormwater management monetary contribution for the Overbank Flood Protection requirement.

(b) If downstream conveyance systems are not adequate to safely collect and convey the 10-year stormflow from the sub-watershed's ultimate land use, the Department, in its sole discretion, may accept the following Stormwater Management Alternatives, in order of preference below to fully or partially address safe conveyance inadequacies:

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1. A Stormwater Management Alternative – Offsite Storm Drain Improvements to analyze, design and construct improvements to storm drainage or watercourses to fully or partially provide safe conveyance of the 10-year discharge;
2. A Stormwater Management Alternative – SWM Water Quantity Monetary Contribution;
3. A combination of the above.

(3) The cost, as approved by the Department, of the design and construction of the Stormwater Management Alternative- Offsite Storm Drain Improvements shall not be in excess of the computed Water Quantity Monetary Contribution. If the cost of the improvements are less than computed monetary contribution amount, the Applicant shall pay a monetary contribution to make up the difference (probably can be said better).

(4) Management of the 100-year storm event is required only when the Department determines that this level of control is necessary for the protection of existing buildings or other critical structures.

(5) Environmental Site Design treatment volume shall not count toward or reduce the required Overbank Flood Protection Volume.

C. Safe Conveyance

(1) Development must not create or exacerbate flooding conditions or erosion in a receiving drainage system or stream during the 10-year storm event. Where proposed development increases the 10-year discharge rate from the site and the receiving drainage system or stream is inadequate to safely convey the increased flows without erosion or flooding, the Applicant may be required to upgrade the receiving drainage system or watercourse to safely convey the post-development 10-year discharge rate of the sub-watershed's ultimate land use.

(2) In cases where there is an existing safe conveyance problem, regardless of the project impact, the Applicant may be required to upgrade the receiving drainage system or watercourse to safely convey the post-development 10-year discharge rate of the sub-watershed's ultimate land use.

(3) The Applicant must conduct a Hydrologic and Hydraulic study for each Drainage Area to analyze safe conveyance of the 10-year storm to any receiving drainage system or watercourse at a study point(s). The study point(s) will be one of the following points as approved by the Department:

- (a) The receiving Drainage System or watercourse, or
- (b) The downstream point which receives a total area equivalent to four times the Drainage Area to the lowest point on the development site. The Drainage Area includes any upstream or uphill area off-site which drains to the low point on the site; or
- (c) Any other point as may be determined by the Department which best reflects

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the Drainage System or watercourse.

D. Stream Restoration.

Stream restoration shall be designed to stabilize channel erosion, maintain baseflow and stormflow conveyance, and protect or enhance aquatic habitat using techniques acceptable to the City. Natural stream channel design and bio-engineering methods are required wherever feasible.

E. Acceptable ESD Treatment Practices.

(1) The following Environmental Site Design Planning techniques shall be applied according to the Design Manual and any additional Department guidance to satisfy the applicable minimum control requirements established in Chapter 19 and these Regulations:

- (a) Preserving and protecting natural resources;
- (b) Conserving natural drainage patterns;
- (c) Minimizing impervious area;
- (d) Reducing runoff volume;
- (e) Using ESD practices to maintain 100 percent of the annual predevelopment groundwater recharge volume;
- (f) Using green roofs, permeable pavement, reinforced turf, and other alternative surfaces;
- (e) Limiting soil disturbance, mass grading, and compaction;
- (f) Clustering development; and
- (g) Any practices approved by the Administration.

(2) The following ESD treatment practices shall be designed according to the Design Manual to satisfy the applicable minimum control requirements established in this Ordinance:

- (a) Disconnection of rooftop runoff;
- (b) Disconnection of non-rooftop runoff;
- (c) Sheetflow to conservation areas;
- (d) Rainwater harvesting;
- (e) Submerged gravel wetlands;
- (f) Landscape infiltration;
- (g) Infiltration berms;
- (h) Dry wells;
- (i) Micro-bioretenion;
- (j) Rain gardens;
- (k) Swales;
- (l) Enhanced filters; and
- (m) Any practices approved by the Administration.

(3) The Department may, in its sole discretion, impose additional construction requirements, including but not limited to, underdrain, overdrain, pretreatment, additional media, subsoil improvements, drainage area limitations or other requirements as directed by the

Adopted by Resolution _____

Department, for the following ESD treatment practices if sited on soil that has an infiltration rate of less than 0.52 inches per hour:

- (a) Permeable pavers and permeable concrete;
- (b) Landscape infiltration;
- (c) Infiltration berms;
- (d) Dry wells;
- (e) Micro-bioretenment;
- (f) Rain gardens;
- (j) Swales and;
- (k) Enhanced filters.

F. Acceptable Structural Stormwater Management Practices.

(1) The following stormwater management practices are approved by the Administration for satisfying minimum water quality requirements, and in some cases, water quantity requirements:

- (a) Stormwater management ponds;
- (b) Stormwater management wetlands;
- (c) Stormwater management infiltration;
- (d) Stormwater management filtering systems; and
- (e) Stormwater management open channel systems.

(2) Water quantity control may be managed in either surface storage systems (such as ponds) or underground storage systems, as approved by the Department.

(3) Other stormwater management measures, including but not limited to proprietary systems for water quality treatment, may be used for water quality controls if they meet the criteria established in the Design Manual and the Regulations and are approved by the Administration and accepted by the Department. Stormwater management practices for redevelopment shall be approved by the Department.

(4) This list of approved structural stormwater management practices is subject to revision by the Administration and the Department.

G. Additional Criteria for Environmental Site Design Practices.

Practice (from MDE Manual)	Description	Maintenance Instrument	Inspection Requirement s.
Green Roof	Roof with protective covering of planting media and vegetation	Easement	Yes

Adopted by Resolution _____

Practice (from MDE Manual)	Description	Maintenance Instrument	Inspection Requirement s.
Permeable Pavements	Paving surfaces that infiltrate runoff - only porous concrete and porous pavers with gravel in interstitial areas accepted	Easement	Yes
Reinforced Turf	Interlocking structural pavers with interstitial areas for grass; also artificial turf	Easement	Yes
Disconnection of Rooftop Runoff	Directing flow from downspouts onto vegetated areas	Covenant - Non-residential and multi-family residential developments. Education - Single Unit Dwellings-Detached and Attached lots.	Yes
Disconnection of Non-Rooftop Runoff	Directing flow from small impervious surfaces (I.e., driveways, sidewalks, etc.) onto vegetated areas	Covenant - Non-residential and multi-family residential developments. Education - Single Unit Dwellings-Detached and Attached lots.	Yes
Sheetflow to Conservation Areas	Directing flow from development to adjacent natural areas	Covenant - Non-residential and multi-family residential developments. Education - Single Unit Dwellings-Detached and Attached lots.	No
Rainwater Harvesting	Practices that intercept and store rainfall for future use - cisterns and rain barrels	Cisterns - Easement Rain barrels - Education	Cisterns - Yes Rain Barrels – Non Routine Inspection
Submerged Gravel Wetlands	Small scale filter utilizing wetland plants in rock media for water quality	Easement	Yes
Landscape Infiltration	On-site planted areas used to infiltrate or filter runoff	Easements for non-residential and multi-family residential developments Covenants for Single Unit Dwellings-Detached and Attached lots.	Yes
Infiltration Berms	Raised soil/sand/stone mounds that filter sheetflow runoff on slopes	Easement (over entire slope)	Yes
Dry Wells	Excavated pit/trench filled with stone to infiltrate runoff from rooftops or small paved areas.	Easements for non-residential and multi-family residential developments Covenants for Single Unit Dwellings-Detached and Attached lots.	Yes

Adopted by Resolution _____

Practice (from MDE Manual)	Description	Maintenance Instrument	Inspection Requirement s.
Micro-Bioretention	Depressed filter beds of sandy soil and organic matter with extensive plantings on surface.	Easements for non-residential and multi-family residential developments Covenants for Single Unit Dwellings-Detached and Attached lots.	Yes
Rain Gardens	Shallow depression area that captures runoff from small areas in a sandy soil planting bed, a mulch layer. Planted with shrubs, grasses and flowers.	Easements for non-residential and multi-family residential developments Covenants for Single Unit Dwellings-Detached and Attached lots.	Yes
Swales	Vegetated channels that provide conveyance, water quality treatment, and flow attenuation of runoff. There are three types: grass swales, wet swales and bio-swales.	Easement	Yes
Enhanced Filters	This is a MODIFICATION to other ESD practices to provide extra stone for infiltration underneath underdrain pipes at the bottom of filtering systems.	Covered by maintenance mechanism for base practice	

DIVISION 4. Inspection Requirements During Construction.

A. Inspection Schedule and Reports.

(1) It is the responsibility of the developer to obtain, schedule, and keep records of all inspections, materials, certifications, and reports as required by the Department.

(2) The Applicant shall notify the Department's inspection staff at least 48 hours before commencing any work in conjunction with the Stormwater Management Permit and upon completion of the project when a final inspection will be conducted.

(3) Periodic inspections will be conducted during construction of stormwater management systems to ensure compliance with the approved plans.

(4) At a minimum, there shall be a pre-construction meeting prior to the installation of each structural stormwater management system and a meeting at the conclusion of the installation. The developer shall provide the inspector with a copy of:

- (a) All material delivery tickets;
- (b) Geotechnical and material test results;
- (c) Surveying verification of structures, pipes, and dimensions;

Adopted by Resolution ____

- (d) Soil amendments;
- (e) Inspection checklists; and
- (f) Any other information required by Department.

B. Inspection Requirements During Construction.

(1) The Department, or a person approved by the Department, shall inspect each stormwater management system under construction as needed to certify the system's compliance with approved plans. The inspector shall conduct each inspection as provided in an inspection checklist that the Department has approved for each type of stormwater management system. The inspector must prepare a written inspection report that includes the following information:

- (a) The date and location of the inspection;
- (b) Whether construction complied with the approved stormwater management plan;
- (c) Any variation from approved construction specifications; and
- (d) Any violations of law or regulations that the inspector observes.

(2) The Department shall notify the applicant in writing if the inspector observes any violations of this Article during the inspection. The written notice shall describe the nature of the violation and prescribe any corrective action needed.

(3) A copy of the Stormwater Management Permit and approved plans shall be available on-site at all times.

C. Inspection Requirements During Construction.

(1) A copy of the Sediment Control Permit and approved plans and Stormwater Management Permit and approved plans shall be available on-site at all times;

(2) At a minimum, inspections shall be made and documented at the following specified stages of construction:

- (a) For Ponds:
 - 1. Upon completion of excavation to sub-foundation and when required, installation of structural supports or reinforcement for structures, including but not limited to:
 - a. Core trenches for structural embankments;
 - b. Inlet and outlet structures, anti-seep collars or diaphragms, and watertight connectors on pipes; and

Adopted by Resolution _____

- c. Trenches for enclosed storm drainage facilities;
2. During placement of structural fill, concrete, and installation of piping and catch basins;
3. During backfill of foundations and trenches;
4. During embankment construction;
5. Upon completion of final grading.

(b) For Constructed Wetlands:

1. At the stages specified for pond construction in Article II. Division 4.B.2. (a) of this section;
2. During and at the completion of final grading to verify accurate spot elevations in basin for correct water depth.

(c) For Infiltration or Filtering Systems:

1. During excavation to subgrade;
2. After delivery of construction materials, and prior to their installation;
3. During placement and backfill of underdrain systems and observation wells;
4. During placement of geotextiles and all filter media;
5. During construction of appurtenant conveyance systems such as diversion structures, pre-filters and filters, inlets, outlets, and flow distribution structures;
6. Upon completion of final grading; and
7. At the stages specified for pond construction in Article II. Division 4.B.2. (a) of this section, if constructing an infiltration basin, surface sand filter or other facility with a dam.

(d) For Open Channel Systems:

1. During excavation to subgrade;
2. During placement and backfill of underdrain systems for dry swales;
3. During installation of diaphragms, check dams, weirs, or other structural components;

Adopted by Resolution _____

4. Upon completion of final grading.

(e) For all other structural stormwater management devices, inspections shall be made as required by the Department. The Department may also require inspection of proprietary stormwater management devices by the manufacturer's representative.

(f) For Environmental Site Design Practices, inspections shall be made as required by the Department.

(g) For Stream Restoration Projects:

1. Upon stakeout of stream improvement locations and limits of disturbance;
2. After delivery of construction materials and prior to their installation;
3. During grading and installation of each restoration feature;
4. Upon completion of construction and installation of landscaping.

D. Landscaping.

For all Stormwater Management Systems with a landscaping component, inspections are required during and after installation of landscaping and establishment of permanent stabilization, and at least once during each growing season for two (2) years after planting to verify a vegetation survival rate of at least 75 percent for all vegetation and a survival rate of 100 percent for all trees.

E. As-Built Plans.

(1) When construction is completed, the Applicant must submit as-built plans and computations for approval prior to release of the Stormwater Management Permit and bond.

(2) As-built plans must include an as-built certificate with language provided by the City and must be sealed by either a Professional Engineer or Professional Land Surveyor.

(3) At a minimum, the as-built submission shall include drawings and computations, where applicable, comparing the approved stormwater management plan with what was constructed and noting any approved revisions and any deviations from the approved design. Recorded copies of all public easements and declarations of covenants required for the project must also be provided. Where relevant, the as-built plan must also include a landscape drawing comparing the approved planting with what was constructed and showing any revisions or substitutions to plantings within the system.

Adopted by Resolution ____

(4) Once approved, copies of the as-built drawings must be given to the City in both Mylar form and in electronic format acceptable to the City for use with the City's Geographic Information System database.

(5) The City may require any additional information including information required by the City's As-Built Requirements and as necessary to ensure compliance with the approved construction plans

DIVISION 5. MAINTENANCE AND INSPECTION AFTER CONSTRUCTION.

A. Routine Inspection.

(1) Except as otherwise provided, the City shall inspect all stormwater management systems to ensure that required maintenance is performed. Except as described below, inspection shall occur at least once every three years of operation thereafter or more often as specified by the Department. In addition, a maintenance agreement between the owner and the City shall be executed for privately owned stormwater management facilities as described in Section 19-71 of Chapter 19 of the Rockville City Code.

(2) Where located on a single unit attached dwelling lot or single unit detached dwelling lot, the following stormwater management systems shall be inspected on a non-routine basis:

- (a) Rain Barrels
- (b) Landscape Infiltration
- (c) Dry Wells
- (d) Rain Gardens
- (e) Alternative Surfaces

B. Notification required.

A person must notify the Department at least 48 hours before initiating any structural maintenance of a private stormwater management system.

C. Permits Required.

It is the responsibility of the owner of a private stormwater management system to obtain all necessary Sediment Control Permit and Stormwater Management Permits before repairing, restoring, or constructing any stormwater management system as required by a maintenance agreement.

D. Qualifications of Maintenance Personnel.

Adopted by Resolution _____

A person performing any cleaning, de-watering, maintaining, repairing, or retrofitting of a stormwater management system must have demonstrated experience in stormwater management system construction and inspection and hold a certificate of attendance awarded through a training program approved by the Department. A person who performs maintenance or repairs on an underground system must have the training and credentials specified in:

(a) The U. S. Department of Labor, Occupational Safety and Health Administration Regulation on permit-required confined spaces (29 CFR, 1910:146);or

(b) The State of Maryland's applicable requirements for Oil Pollution and Tank Management (COMAR Title 26, Subtitle 10).

E. Inspection Reports.

The City shall keep inspection reports for all stormwater management systems. Inspection reports for stormwater management systems shall include the following:

(a) The date of inspection;

(b) Name of inspector;

(c) The condition of all components of the Stormwater Management System including but not limited to:

1. Vegetation and filter media;
2. Fences or other safety devices;
3. Spillways, pipes, valves, or other control structures;
4. Embankments, slopes, and safety benches;
5. Reservoir or treatment areas;
6. Inlet and outlet channels or structures;
7. The aboveground and underground drainage;
8. Sediment and debris accumulation in storage and forebay areas;
9. Any environmental site design practices to the extent practicable;
10. Any other item that could affect the proper function of the stormwater management system; and
11. Description of needed maintenance and repairs to correct deficiencies.

Adopted by Resolution ____

F. Deficiencies.

After notification is provided to the owner of any deficiencies discovered by an inspection of a stormwater management system, the owner shall have a reasonable time period as determined by the Department to correct the deficiencies. The City shall then conduct a subsequent inspection to ensure completion of the corrective action. If repairs are not undertaken or are found to be improperly done, then correction and enforcement procedures may be taken pursuant to Chapter 19 of the Rockville City Code.

G. Final inspection.

Upon completion of maintenance or repair work, the Department must conduct a final inspection of the system. If the Department determines that the system is in effective working condition, it will also indicate this on its records for the system. If the Department determines that the system is not in effective working condition, it must prepare a written report of what additional maintenance or repair is needed. The report must be included in the record for the system and a copy must be sent to the owner of the system.

H. Enforcement Responses.

Generally, owners of private stormwater systems who do not maintain their system will be ordered to restore the system to its permitted condition as described on the approved plans and may be subject to any other administrative action, penalty or remedy allowed by law. In certain rare circumstances it may be impracticable or inappropriate for owners to restore or repair neglected private stormwater management systems to their permitted condition. Where appropriate the Department may consider, but is not required to accept, one or a combination of the following maintenance alternatives:

(1) Pay a fee in lieu. At the Department's sole discretion, the Department may accept a fee in lieu based on the monetary contribution formulas in Article II, Division 1 Section E.

(2) Replace the system. Where restoring a private stormwater management system to its permitted condition is impracticable or detrimental to the goals of this Chapter, the Owner may propose to install a different stormwater management system to replace the failing system. The new system must provide greater stormwater controls than the permitted system. The department is not obligated to accept proposed replacement systems. If accepted, all Owners shall obtain necessary Sediment Control permits and any other permits required to construct the replacement system.

ARTICLE III

SEDIMENT CONTROL REGULATIONS

DIVISION 1. POLICY AND PROCESS

A. When Required.

Adopted by Resolution _____

(1) A Sediment Control Permit and an approved Sediment Control Plan are required for the following land disturbing activities:

(a) Major Land Disturbing Activity

Land disturbing activity involving 5,000 square feet or more of disturbed area or 100 cubic yards or more of grading;

(b) Environmentally Sensitive Areas

Any land disturbing activity within a stream buffer as defined in the City's Environmental Guidelines;

(c) Small Land Disturbing Activity Resulting in a New Building

(2) Land disturbing activity involving less than 5,000 square feet of disturbed area and less than 100 cubic yards of grading requires a Sediment Control Permit if a new building will be constructed, including a new single-family-detached dwelling unit. Construction of other small land disturbing activities that does not result in a new building, such as deck support foundations, patios, small additions, sheds, and minor commercial development, does not require a Sediment Control Permit. All land disturbing activity is subject to the provisions of Article III. Division 4., regardless of whether a Sediment Control Permit is issued.

B. Issuance.

(1) A Sediment Control Permit will be issued only after issuance of a Forestry Permit, where such approval is required. A Sediment Control Permit by itself does not authorize tree removal or clearing.

(2) A Sediment Control Permit may be referenced by, and incorporated in, a more inclusive Public Works Permit. In such cases, all conditions of a Sediment Control Permit shall apply to the Public Works Permit.

(3) A copy of the Sediment Control Permit and approved Sediment Control Construction Plan must be available on-site at all times.

C. Rough Grading.

The Department may issue, at its sole discretion, a Sediment Control Permit for rough grading of a site, and will require fees as provided by resolution of the Mayor and Council and bonds or other securities as determined by the Department. Permission for rough grading authorizes general grading of land only, and does not authorize clearing, excavation for a structure or footings, laying of foundations or any activity which determines a specific use for the site. Sediment Control Permit issuance for rough grading does not indicate approval of use, design, or construction of any structure, including a stormwater management structure. Any grading performed prior to final approval of a Site Plan, Building Permit, Community Planning and Development Services Development Review Application, or other required City permit or

Adopted by Resolution _____

approval, is done at the developer's own risk that the work performed is not appropriate to the approved use.

D. Builder's Sediment Control Permit.

The Department may issue a Sediment Control Permit to a builder acting as the developer for construction of one or more individual lots within an approved development project. The Department will determine submittal requirements on a case-by-case basis, and will require fees as provided by resolution of the Mayor and Council and bonds or other securities as determined by the Department.

E. Approval by the Administration.

Any State or federal project requires approval by the Administration.

DIVISION 2. SUBMITTAL REQUIREMENTS

A. Sediment Control Permit.

Submittals for Sediment Control Permit approval shall include, at a minimum, the following information for approval by the City:

- (a) Sediment Control application and all required fees;
- (b) Sediment Control Construction Plan;
- (c) Computations, construction details and specifications necessary to support the Sediment Control Plan;
- (d) Any temporary or permanent easements needed for grading, drainage or other uses;
- (e) A phasing plan, when required by the Department, to limit mass clearing and grading;
- (f) An itemized estimate of the type, quantity, and cost of materials required for erosion and sediment control measures, including stabilization (on 8 ½ x 11 sheets);
- (g) Performance bond or other surety; and
- (h) An NRI/FSD (Natural Resources Inventory/Forest Stand Delineation) and a Final Forest Conservation Plan (FCP), both approved by the City Forester, as required by Chapter 10.5 of the Rockville City Code.

B. Sediment Control Construction Plan.

- (1) A Sediment Control Construction Plan shall consist of the following:

Adopted by Resolution _____

(a) A vicinity sketch indicating north arrow, scale and other information necessary to easily locate the property;

(b) Name, address and telephone number of the property's owner, and, if different, the developer and/or applicant;

(c) An accurate topographical drawing(s) of the site. The mylar original drawing shall be no larger than 24" x 36" and at a scale of not less than one (1) inch to thirty (30) feet, unless otherwise approved by the Director, and shall show:

1. An appropriate legend;
2. A clear, correct, and definite delineation of the limits of disturbance (i.e. showing area to remain undisturbed and showing areas to be disturbed);
3. Elevations, dimensions, extent and slope of all existing and proposed grading and the location of all existing and proposed buildings, structures, paving, utilities, sewers, water and storm drains, wooded areas and tree groups, and individual trees greater than six (6) inches in diameter on the site within twenty (20) feet of the area to be disturbed, all clearly indicated with proposed contours at the same interval as required or used for existing topography;
4. Drainage area boundary and acreage of the land tributary to the site, and of the existing and proposed sub-drainage areas within the site;
5. Storm drainage and runoff conveyance provisions, including 10-year discharge and velocity and site conditions at outfalls and other surface water discharge points;
6. Design and location of all sediment control and Stormwater Management Systems to be constructed or utilized in connection with, or as part of, the proposed work. Said measures shall be designed to minimize on-site erosion and off-site sedimentation, and shall conform to the standards, specifications and requirements of these Regulations; and
7. All details, notes, specifications and information relevant to the specified sediment and erosion control measures.

(d) Sequence of construction for the relationship of implementation and maintenance of sediment controls and each phase of disturbance or construction. Said sequence shall, at a minimum, include a time schedule indicating the anticipated starting and completion dates of:

1. Pre-construction meeting with the Department Inspector, City Forester, and Applicant prior to commencement of clearing and grading;
2. Construction of perimeter and other initial sediment controls;

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3 Approval of sediment controls by Department Inspector prior to proceeding with clearing, grading or construction;

4. Remaining clearing;

5. Road grading;

6. Grading for the remainder of the site;

7. Utility installation and usage/blockage of storm drain system during construction;

8. Final grading, landscaping, or stabilization;

9. Approval of Department Inspector of final stabilization prior to removal of sediment controls; and

10. Removal of sediment controls;

11. Any other plans, drawings, materials, or information as may be required by the Department.

(2) The permittee may not modify the sequence during construction without the prior approval of the Department. The sequence of construction shall reflect any phasing of grading or construction required by the City.

C. Certifications Required on Sediment Control Construction Plans.

The following certifications shall appear on the Sediment Control Construction Plan:

(a) Design Certification and Quantities

“I hereby certify that this plan has been prepared in accordance with the latest Maryland Standards and Specifications for Soil Erosion and Sediment Control, and Chapter 19 of the Rockville City Code.” The estimated total amount of excavation and fill has been computed to _____ cubic yards of excavation and _____ cubic yards of fill and the total area to be disturbed as shown on these plans has been determined to be _____ square feet. The impervious area shown on this plan (including that within 30 feet of the contiguous right-of-way) is _____ acres.”

Signature: _____

Printed name and title: _____

Date: _____

Maryland Registration number: _____

Title and License Number: (Professional Engineer, Professional Land Surveyor, Registered Landscape Architect or Licensed Architect)

Adopted by Resolution _____

(b) Owner's/Developer's Certification

"I/We hereby certify that any clearing, grading, construction or development, or all of these, will be done pursuant to this plan and that responsible personnel involved in the construction project will have a certification of training at a Department of the Environment-approved training program for the control of sediment and erosion before beginning the project, and that the applicable sediment control conditions and requirements of the City of Rockville and the State of Maryland and its agencies are hereby made part of this plan." The Certificate of Training for Responsible Personnel requirement may be waived by the City of Rockville on any project involving four or fewer residential units.

Signature _____

Printed name and title _____

Date _____

D. Additional Sediment Control Construction Plan Notations

(1) The City's Standard Notes for Erosion and Sediment Control, as found in the "City of Rockville Standards and Details for Construction," shall appear on all Sediment Control Construction Plans.

(2) The following notation shall appear on all Sediment Control Construction Plans:

"Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within:

(a) Seven calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1); and

(b) Fourteen days as to all other disturbed or graded areas on the project site.

(3) The requirements of this note do not apply to those areas that are shown on the plan and are currently being used for material storage, or for those areas on which actual construction activities are currently being performed. Maintenance shall be performed as necessary to ensure that the stabilized areas continuously meet the appropriate requirements of the current "Maryland Standards and Specifications for Soil Erosion and Sediment Control."

E. Submittal Requirements for Small Land Disturbing Activity.

The department may waive or modify any of the submittal requirements for land disturbing activity involving less than five thousand (5,000) square feet and 100 cubic yards of grading where justified by the extent of land disturbing activity and/or potential environmental impact of the development. The Department, in its sole discretion, may accept a rough sketch plan showing basic sediment control measures to protect the environment in lieu of a full Sediment Control Plan.

Adopted by Resolution _____

DIVISION 3. SEDIMENT CONTROL DESIGN CRITERIA

A. Required

Sediment control measures are required for all land disturbing activities requiring Sediment Control Permits and are encouraged for other land disturbing activities. All measures shall conform to the requirements and guidance in the latest version of the “Maryland Standards and Specifications for Soil Erosion and Sediment Control”.

B. Design and Construction of Sediment Control Measures.

The following standards, specifications, and requirements relating to the stabilization of land and prevention of erosion and sedimentation during construction shall be considered in the development of sediment control measures and incorporated into the Sediment Control Construction Plan:

(a) Development shall be fitted to the topography and soils so as to create the least erosion potential.

(b) Natural vegetation shall be retained wherever possible and/or as long as possible.

(c) The smallest practical area of land shall be disturbed at any one period during development.

(d) Sediment control measures must be provided in subsequent phases of multiphase development or in redevelopment projects to protect existing on-site stormwater management facilities from contamination and damage during construction.

(e) Appropriate sediment control practices such as silt fences, interceptor ditches, berms, terraces, soil erosion checks, sediment traps, and sediment basins shall be installed to minimize soil and water losses which are described in the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control, and any revision or amendment thereof.

(f) When a permanent building or structure will be below ground water table level, a well(s) and pump(s), or other approved measures, shall be installed near the construction area so as to draw down the water level below proposed footings. This pumping shall be continuous until construction below the ground water table is complete. Pumping water directly from a pool having suspended solids should be discouraged but if it becomes necessary, a floating intake and approved sediment control measures shall be used to keep sediment and siltation controlled on-site so as to release clear or translucent water.

(g) All other applicable State standards or regulations as may now exist or hereafter be adopted. The Department will make available upon request copies of all current State standards and regulations.

Adopted by Resolution _____

DIVISION 4. SEDIMENT CONTROL MEASURES DURING LAND DISTURBANCE.

In addition to any other requirements or conditions, the following apply during land disturbing activity:

(1) Maintenance of Protective measures

(a) Satisfactory ground cover, where required, shall be maintained during the life of the project and such cover is subject to inspection by the Department.

(b) All graded surfaces, erosion control measures, vegetative covers and/or other protective measures disturbed or destroyed during the course of operations shall be promptly repaired, restored and maintained in accordance with the approved plan until permanent measures are accepted by the Department.

(2) No debris or other materials shall be deposited in floodplains, watercourses, public streets, highways, sidewalks, or other public thoroughfares.

(a) No person engaged in any land disturbing or hauling activity shall cause or permit any soil, earth, sand, gravel, rock, stone, or other material, or liquid to be deposited upon or to roll, flow, wash or be blown by wind upon or over the premises of another in a manner to cause damage to such premises without the express consent of the owner of such premises; or upon or over any public street, street improvement, road, sewer, storm drain, watercourse, or right-of-way, or any public property in such a manner to damage or interfere with the use of such property.

(b) If any soil, earth, sand, gravel, rock, stone or other material or liquid is caused to be deposited or to roll, flow or wash upon any public or private property in violation of this section, the person responsible shall be notified and shall cause the same to be immediately removed from such property. In the event that it is not so removed, the Department shall cause such removal and the cost of such removal by the Department shall be paid to the City by the person who failed to remove the material. The cost of such removal shall become as a lien against all property and all rights to property, real or personal, of any person liable to pay said costs, and shall be collected in the same manner as ordinary taxes.

DIVISION 5. INSPECTION AND ENFORCEMENT

A. Generally

(1) Inspection and enforcement of conditions of the Sediment Control Permit shall be the responsibility of the Department, if so delegated by the Administration.

(2) The Department shall inspect every active site with a Sediment Control Permit for compliance with permit conditions once every two weeks, on average.

Adopted by Resolution _____

(3) The Department shall prepare a written report after each inspection, listing the inspection's date and location, and indicating compliance or noncompliance, any deficiencies in the Sediment Control Construction Plan, implementation or maintenance, and if a violation exists, the type of enforcement action taken.

(4) The Department shall notify the on-site personnel or the owner/developer in writing when violations are observed, including the nature of the violation, required corrective action, and a time period in which said violation must be corrected.

(5) The Department shall investigate sediment control complaints from any interested party and take enforcement action if violations are confirmed. The Department shall notify the complainant of the result of any investigation and any action taken or proposed.

(6) The issuance of a Sediment Control Permit and the inspection of the construction site by the Department does not relieve the applicant of the continuing responsibility to effectively abate sediment pollution, properly install sediment control measures, and maintain such measures in good working order.

ARTICLE IV

STORMWATER MANAGEMENT UTILITY FEE REGULATIONS

DIVISION 1. POLICIES AND PROCEDURES

A. Introduction.

The Stormwater Management Utility Fee establishes a system of charges to finance the City's stormwater management, storm drainage, and water quality programs. The system of charges is based on the amount of impervious area associated with a property, which is directly correlated to the volume of runoff within a watershed or catchment area.

B. Impervious Surface Measurement.

The following methods may be used, at the City's sole discretion, to determine the impervious surface measurement for a property:

- (1) GIS analysis of aerial photography;
- (2) Measurement from approved as-built engineering drawings;
- (3) Field surveys signed and sealed by a Professional Engineer or Professional Land Surveyor licensed in the State of Maryland.

C. Exempted Impervious Areas.

- (1) The following impervious areas are exempted from measurement for the Stormwater Management Utility Fee.

Adopted by Resolution _____

(a) Impervious area of less than 100 square feet within an unimproved lot; and

(b) Impervious area within public street rights-of-way.

(2) All other impervious areas within a property, including but not limited to recreational or aesthetic features, sidewalks, alleys, private driveways or roads, and parking lots, are subject to the fee, except that the Director may exempt private roads, streets, and other rights-of-way that primarily function and were intended to function as public roads, streets, or rights-of-way and that further meet construction (including width) standards of the City's Road Code as set forth in Chapter 21 of the Rockville City Code.

D. Hardship.

No exemption or specific fee relief is granted by the City for hardship or failure to pay the Stormwater Management Utility Fee.

DIVISION 2. SUBMITTAL REQUIREMENTS FOR REQUEST FOR ADJUSTMENT

A. Request to View City Impervious Measurements.

Before filing a request for adjustment of the Stormwater Management Utility Fee, a property owner may contact the Department to request an explanation of the Stormwater Management Utility Fee bill and to view the impervious surface measurement determined by the City for the property.

B. Adjustment Request Submittal Requirements.

A property owner requesting an adjustment for the Stormwater Management Utility Fee must submit the following information to the Department of Public Works within 30 days of the issuance date of the bill:

(1) Completed Stormwater Management Utility Fee Adjustment application form supplied by the Department;

(2) If the request for adjustment is regarding Chapter 19, Sec.19-90(a)(2), error in the impervious surface measurement, a plan view of the property's impervious surface measurement must be submitted with the application, and shall be prepared at the owner's expense. The plan must meet the following criteria:

(a) Plan prepared at a scale of 1" = 30' or more detailed;

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(b) Plan must show all impervious areas and label their dimensions within the property boundaries, including buildings, patios, driveways, parking areas, graveled areas, and any other separate impervious structures greater than 10' X 10' and paths wider than 4';

(c) Plan signed and sealed by a Professional Engineer or Professional Land Surveyor licensed in the State of Maryland attesting to the accuracy of the impervious surface measurements.

(3) For an adjustment request based on Chapter 19, Sec. 19-90(a)(2), the City may grant up to an additional 30 days to submit a plan view of the properties' impervious surface measurement. The City also may grant up to an additional 30 days for adjustment requests to applicants that show good cause.

C. Requests for adjustment filed by August 15, if approved, will be applied to the current year's Stormwater Management Utility Fee bill. Requests received after August 15, if approved, will be applied to the following year's bill. No refunds or prorated bills will be issued.

DIVISION 3. FEE CREDIT POLICY

A. Credit Concept.

Stormwater Management Utility Fees calculated on the basis of impervious surface cover may be adjusted through the use of credits when an investment in properly maintained on-site stormwater management systems results in a reduced impact on the public Stormwater Management System.

B. Credit Eligibility.

(1) Owners of property designated for any Use, except those designated "Detached One-Family Dwelling" under Chapter 25 of the Rockville City Code, that structurally maintain and operate a stormwater management system are eligible for a credit. Previous payment of stormwater management waivers or monetary contributions in lieu of on-site stormwater controls does not confer eligibility to receive a credit. The construction of and dedication to the City of a Stormwater Management System does not confer eligibility to receive a credit.

(2) The following Stormwater Management Systems are eligible for a Stormwater Utility Fee Credit.

(a) Structural Stormwater Management Systems;

(b) Environmental Site Design practices categorized by the Design Manual as alternative surfaces;

(c) The following Environmental Site Design practices categorized by the Design Manual as microscale practices: cisterns, submerged gravel wetlands, landscape infiltration, infiltration berms, dry wells, micro-bioretenment, rain gardens, swales;

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(d) Any other Stormwater Management System deemed eligible by the Department.

(3) The following Stormwater Management Systems are not eligible for a credit: disconnection of rooftop runoff, disconnection of non-rooftop runoff, sheet flow to conservation areas, rain barrels, enhanced filters, and any other system determined ineligible by the Department.

(4) Structural Stormwater Management Systems designed only for recharge are eligible for a credit if they are subject to routine structural inspections and maintenance.

(5) A property owner that provides only aesthetic maintenance of a Stormwater Management System is not eligible for a credit. Aesthetic maintenance includes activities that are not essential to the proper operation or function of the practice or are considered part of routine property maintenance. Examples of aesthetic maintenance include, but are not limited to, routine trash or leaf removal, mowing, roof gutter cleaning, and enhanced landscaping.

(6) Stormwater Management Systems that are not certified as functioning as originally designed are not eligible for a credit. Functioning as originally designed means that the practices is functioning in accordance with the original design specifications, regardless of whether it meets the standards established in the most recent version of the Maryland Stormwater Design Manual.

(7) The City reserves the right to inspect any Stormwater Management System listed on a fee credit application on a routine or non-routine basis. If a practice is found by the City inspector to be non-functioning, the City shall issue to the owner a report of needed maintenance. The inspection may also include direction to correct site conditions adversely affecting the practice, such as uncontrolled soil erosion or contamination.

(8) The City may revoke a previously approved fee credit at any time for failure to properly maintain a Stormwater Management System, or for unapproved changes made to the system, or for changed site conditions that adversely impact the system. The owner is responsible for correcting problems at his own expense. Where a Stormwater Management System ceases to function due to the Owner's failure to provide proper maintenance, the system will be ineligible for a fee credit for a period of two (2) years after the date that the system is restored to functioning condition.

(9) Any approved credit will be applied only to bills for the owner for the Stormwater Management System. Credit may be given to a single owner for impervious surface areas on multiple parcels that drain to a practice on a separate parcel, provided all parcels are owned by the same entity as the practice itself.

C. Credit Application Requirements and Certification Reports.

(1) To apply for a Stormwater Management Utility Credit, the owner must submit, at his own expense, the following information for the approval of the Department:

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(a) Completed Stormwater Management Utility Fee - Private System Credit application form supplied by the Department and application fee;

(b) Description of the type of system (s), including water quality control and/or water quantity control design criteria and performance standard, and year built;

(c) Drainage area map for the system showing the boundaries and acreages for impervious areas that are treated in the system;

(d) As-built engineering plans for the system. Stormwater Management Systems are not eligible for fee credits until the as-built plans have been accepted by the Department. If as-built plans do not exist for a practice, the applicant must develop and submit these for review and acceptance to qualify for the credit.

(e) A narrative of the known maintenance history of the system, including routine maintenance and significant structural maintenance and repair;

(f) Information on any public funds used to repair, upgrade or retrofit the system, including the amount and the date the repair, upgrade or retrofit was made;

(g) Completed calculation sheet, on a form provided by the Department, to determine the monetary amount of the claimed credit;

(h) Initial Certification Report. An initial certification report shall be prepared by a Professional Engineer, or under the guidance of a Professional Engineer.

1. Initial certification shall include an inspection report pursuant to Article II, Division 5.D. of these Regulations, or other format approved by the Department. The report must certify that the Stormwater Management System is functioning as originally designed, is operational, and has been adequately maintained.

2. The initial certification report shall be signed and sealed by the responsible Professional Engineer. The certification inspection shall not be more than one year old at time of application.

(2) Credit Recertification for Continued Credit. In order to remain eligible for a credit, a property owner must submit to the City, every three years and at his own expense, a Private Stormwater Management System Credit Recertification application and report for approval by the Department.

(a) The recertification report shall include photographs of each Stormwater Management System listed on the recertification form, a description of maintenance performed since the last recertification request, and a copy of any maintenance records or invoices. The owner shall certify that the system(s) continues to be operational and has been adequately maintained.

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(b) The recertification application shall include an inspection report pursuant to Article II, Division 5.D. of these Regulations, or other format approved by the Department. The recertification inspection shall be performed by a Professional Engineer, under the guidance of a Professional Engineer, or by a person approved in accordance with Article II, Division 5.D. of these Regulations.

(c) The report shall include information on any public funds used to upgrade or retrofit the system, including the amount and the date the upgrade or retrofit was made.

(3) Any maintenance or functional deficiencies must be remedied at the owner's expense before the practice may qualify or be recertified for a Stormwater Management Utility Fee credit. In addition, maintenance or safety deficiencies will be addressed by the Department in accordance with terms of the practice's Stormwater Management Easement and Maintenance Agreement.

D. Credits for Private Stormwater Management Retrofits Under Cost-Share Program.

(1) The City, at its sole discretion, may consider sharing up to 50% of the retrofit construction costs for a private Stormwater Management System that has been identified as a priority stormwater improvement in a City watershed study, or if the Department determines the retrofit will make a significant improvement to meeting current water quality and/or quantity controls for the watershed. Any privately owned system that has been retrofitted to meet current stormwater standards using public funding shall be eligible for a subsequent Stormwater Management Utility Fee credit only in accordance with the following:

(a) The retrofit project must be approved by the Department for the cost-share program;

(b) The construction of the retrofit must be completed to the satisfaction of the Department and all City permits for the retrofit must be released at least 6 months prior to receiving credit;

(c) The stormwater management practice's ownership and structural and aesthetic maintenance must remain the responsibility of the private owner;

(d) If the practice was not functioning as originally designed prior to the retrofit, the owner shall not be eligible for any fee credit until such time that the cumulative amount of credit that otherwise would have been allowed equals or exceeds the public investment in the retrofit;

(e) If the practice was functioning as originally designed prior to the retrofit, the owner is still eligible for a credit based on Article IV, Division 3(E)(2) of these Regulations, Previous Standards Credit. After the retrofit, the owner shall be eligible for a credit based on Article IV, Division 3(E)(3) of these Regulations, Current Standards Credit, once the cumulative difference between the credit provided in Previous Standards Credit and Current Standards Credit (i.e., the difference between credit provided in Article IV, Division 3(E)(2) and Article IV, Division 3(E)(3) of these Regulations) equals or exceeds the public investment in the retrofit.

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(f) All necessary approvals and permits must be obtained for retrofits before commencing disturbance or construction, including City Sediment Control Permits, Stormwater Management Permits, and Forest Conservation Permits, and any applicable State or NRCS permits.

(2) Nothing in this Article shall prohibit a property owner from upgrading or retrofitting a practice at his/her expense in accordance with the provisions of these Regulations to qualify for credit, or to qualify for a higher credit.

E. Credit Amounts.

(1) The credit amount is calculated as a reduction in site impervious surface area. The credit is prorated based on the amount of impervious surface area located on the property draining to the stormwater management practice, and not the total amount of impervious surface cover on the site, and may also be prorated based on the percentage of stormwater management treatment volume provided in a practice as compared to the target treatment standard.

(2) Previous Standards Credit. A stormwater management practice that is certified as functioning as originally designed, but does not meet the standards established in the most recent version of the Maryland Stormwater Design Manual, makes the contributing impervious surface area eligible for a maximum cumulative credit of 20% against the Stormwater Management Utility Fee. Credits are allocated as follows:

(a) A maximum of 10% credit is provided if the practice provides stormwater quality control.

(b) A maximum of 10% credit is provided if the practice provides stormwater quantity control.

(3) Current Standards Credit. A stormwater management practice that is certified as functioning as originally designed, and meets the standards established in the most recent version of the Maryland Stormwater Design Manual, makes the contributing impervious surface area eligible for a maximum cumulative credit of 50% against the Stormwater Management Utility Fee. Credits are allocated as follows:

(a) A maximum of 25% credit is provided if the practice provides stormwater quality control for Water Quality Volume (WQv).

(b) A maximum of 25% credit is provided if the practice provides stormwater quantity control for Channel Protection Storage Volume (CPv).

(c) A maximum of ten percent (10%) credit is provided if the practice provides only stormwater control for Recharge Volume (RE_v), and is a structural stormwater management practice.

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(4) Where an eligible stormwater management practice meets the standards established in the most recent version of the Maryland Stormwater Design Manual for quality, but not quantity, or vice versa, it is acceptable to combine (2) and (3) above accordingly. For example, impervious surface area draining to a practice that provides quality control in accordance with the Maryland Stormwater Design Manual, but provides quantity control under an older standard, would be eligible for a maximum of 35% credit (25% for quality plus 10% for quantity). However, the cumulative credit may not exceed fifty percent (50%), except for practices that meet the Additional Quantity Reduction Credit.

(5) The owner of an eligible private practice that treats off-site impervious area located within the City may take an additional credit for treating the off-site impervious area, provided that in no case shall the total credit exceed the total amount of the Stormwater Management Utility Fee charged to the property on which the practice is located.

(6) Additional Quantity Reduction Credit. A maximum of 100% credit is provided to impervious surface areas draining to onsite stormwater management practices that retain the difference in runoff volume between the 100-year post-construction storm event and the 100-year pre-developed storm event.

(7) The cumulative credits for a property shall in no case exceed the total amount of the Stormwater Management Utility Fee charged to the property.

F. Affirmative Duty and Timing.

(1) It is the sole responsibility of the property owner to apply for a credit.

(2) A property owner may apply for a credit at any time in accordance with the following:

(a) Credit applications must be submitted before March 1 and approved before May 1 to qualify for credit on the current year's bill. Any credit application approved on or after May 1 shall be applied to the following year's bill.

(b) The Stormwater Management Utility Fee shall not be prorated for a credit approved by the City during the billing year. Any approved credits will be applied to the next billing cycle.

DIVISION 4. CONDOMINIUM FEES

A. Introduction.

The fees for condominium units shall be billed directly to the owners of record for all condominium units. The fee for the Condominium property shall be charged in equal shares based on the total number of units attributed to the Condominium by the State Assessment Office and Montgomery County Treasury Division, including any garage units, storage units, or

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ancillary units associated with the Condominium, unless an alternative methodology is approved to the Director, as authorized by Section 19-87 (c) of Chapter 19 of the Rockville City Code.

B. Alternate Methodology.

(1) A Condominium's Council of Unit Owners, Board of Directors, or other entity authorized to act on behalf of the unit owners in accordance with the Condominium's bylaws, may request that the Director approve an alternative methodology for billing fees associated with the Condominium units. The request must be made in writing and accompanied by a copy of a resolution or direction from the Condominium's Council or Board authorizing that such request be made.

(2) Upon request, the Department shall provide to the Condominium Council or Board information regarding the impervious surface measurement for its property to assist in choosing an appropriate methodology for billing and allocating the Stormwater Management Utility fee among unit owners.

(3) The Condominium's Council or Board may request a billing system based on percentages of common expenses assigned to unit owners as established in the Condominium's bylaws.

(4) The Director may reject any or all methodologies based on cost and/or factors that make administration of the methodology impractical under the circumstances.

DIVISION 5. COMMON AREA FEES

A. Introduction.

The fees for common areas owned by Community Associations shall be billed to the Community Association unless an alternative methodology is approved to the Director, as authorized by Section 19-87 (f) of Chapter 19 of the Rockville City Code.

B. Alternative Methodology.

(1) A Community Association may request that the Director approve an alternative methodology for billing fees associated with the common area owned by the Association. The request must be made in writing and accompanied by a copy of a resolution of the Association's Board of Directors authorizing that such request be made.

(2) Upon request, the Department shall provide to a Community Association information regarding the impervious surface measurement for its common areas to assist the association in choosing an appropriate methodology for billing and allocating the Stormwater Management Utility fee for common areas among its members.

(3) The Director may approve any appropriate billing methodology for a specific Community Association, including but not limited to, billing the owners of semi-detached and townhouse dwellings located on separate residential lots a Stormwater Management Utility fee

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that includes each lot's share of the impervious surface measurement for the common areas. The fee for each such residential lot shall be calculated as follows:

(a) Determine the sum total of all impervious surface measurement in square feet for all semi-detached and townhouse residential lots plus all lots held in common ownership.

(b) Divide the sum total impervious surface measurement by the number of square feet comprising an ERU to get the total number of Equivalent Residential Units, rounding up to the next whole number.

(c) Multiply the Equivalent Residential Unit Rate by the total Equivalent Residential Units to determine the total fee for the aggregated lots, including the common areas.

(d) Divide the total fee for the aggregated lots, including the common areas, by the number of semi-detached and townhouse residential lots. This is the amount billed to each semi-detached and townhouse residential lot.

(e) No fee is billed to the Community Association.

(4) The Director may reject any or all methodologies based on cost and/or factors that make administration of the methodology impractical under the circumstances.